Application No. 10/822581 Page 3

Amendment Attorney Docket No. S63.2B-10865-US01

## Amendments To-The Claims:

1. (Amended) An article comprising a laminate having first and second layers and a tielayer therebetween bonding the first and second layers, the inner-and outer first and second layers formed, respectively, of first and second polymer materials, the first and second polymer materials being different, wherein

the first and second polymer materials, respectively, have first and second functional groups thereon,

the tie layer is formed of a tie-layer polymer material obtained by melt modification of one of the first or the second polymer materials, said melt modification comprising incorporation therein of at least 5% by weight of a coupling agent, the coupling agent having functional groups thereon, at least some of which are reactive in the melt with at least the functional groups on the other of said first and second polymer materials.

- 2. An article as in claim 1 wherein the coupling agent functional groups further comprise functional groups which are reactive in the melt with the functional groups of said one of the first and second polymer materials.
- 3. An article as in claim 1 wherein the tie layer polymer has been irradiatively crosslinked.
- 4. An article as in claim 1 wherein the first polymer material is a polyester.
- 5. An article as in claim 4 where the second polymer material is a polyolefin or a polyamide.
- 6. An article as in claim 5 wherein the tie layer polymer material is a modified polyolefin or polyamide.
- 7. An article as in claim 1 wherein the first polymer material is a polyester or a

Application No. 10/822581 Page 4

Amendment Attorney Docket No. S63.2B-10865-US01

polyamide, the second polymer material is a polyolefin and the tie layer material is obtained by modifying the second polymer material.

- 8. An article as in claim 7 wherein at least a portion of the second polymer material and the tie-layer polymer material have been crosslinked after formation of the laminate.
- 9. An article as in claim 1 wherein the coupling agent is a member of the group consisting of anhydrides of polycarboxylic acids, polyepoxides, polyoxazalines, polycarbodiimides, and polyisocyanates.
- 10. An article as in claim 9 wherein the coupling agent is present in the tie layer material in an amount of from about 7% to about 35% by weight.
- 11. An article as in claim 1 wherein the coupling agent is incorporated into the tie layer material in an amount of 10-20% by weight.
- 12. An article as in claim 1, the tie layer material further comprising a catalyst for reaction of the coupling agent with functional groups on said other of said first and second polymer materials.
- An article as in claim 12 wherein the catalyst is selected from the group consisting of tri-valent phosphorous compounds, pentavalent phosphoric compounds, tin compounds, titanate compounds, tertiary amines, blocked amines, and mixtures thereof.
- 14-29. (Cancelled)
- 30. A laminate which comprises first and second layers of different polymers, with an adjoining tie layer between the first and second layers, wherein the tie layer is a melt modified product of one of the two different polymers and a coupling agent that is reactive with at least the other of the two different polymers.

Application No. 10/822581
Page 5

Amendment Attorney Docket No. S63.2B-10865-US01

- 31 (New) A laminate as in claim 30 wherein the coupling agent functional groups further comprise functional groups which are reactive in the melt with the functional groups of said one of the first and second polymer materials.
- 32. (New) A laminate as in claim 30 wherein the tie layer polymer has been irradiatively crosslinked.
- 33. (New) A laminate as in claim 30 wherein the first polymer material is a polyester.
- 34. (New) A laminate as in claim 33 where the second polymer material is a polyolefin or a polyamide.
- 35. (New) A laminate as in claim 34 wherein the tie layer polymer material is a modified polyolefin or polyamide.
- 36. (New) A laminate as in claim 30 wherein the first polymer material is a polyester or a polyamide, the second polymer material is a polyolefin and the tie layer material is obtained by modifying the second polymer material.
- 37. (New) A laminate as in claim 36 wherein at least a portion of the second polymer material and the tie-layer polymer material have been crosslinked after formation of the laminate.
- 38. (New) A laminate as in claim 30 wherein the coupling agent is a member of the group consisting of anhydride compounds, polyepoxide compounds, polyoxazalines, polycarbodiimides, and polyisocyanates.
- 39. (New) A laminate as in claim 38 wherein the coupling agent is present in the tic layer material in an amount of from about 7% to about 35% by weight.

Application No. 10/822581
Page 6

Amendment
Attorney Docket No. S63.2B-10865-US01

- 40. (New) A laminate as in claim 30 wherein the coupling agent is incorporated into the tie layer material in an amount of 10-20% by weight.
- 41. (New) A laminate as in claim 30, the tie layer material further comprising a catalyst for reaction of the coupling agent with functional groups on said other of said first and second polymer materials.
- 42. (New) A laminate as in claim 41 wherein the catalyst is selected from the group consisting of tri-valent phosphorous compounds, pentavalent phosphoric compounds, tin compounds, titanate compounds, tertiary amines, blocked amines, and mixtures thereof.
- 43. (New) A laminate as in claim 41 wherein, in the tie layer, the coupling agent comprises about 0.5% or more.
- 44. (New) A method as in claim 43 wherein the coupling agent is a member of the group consisting of anhydrides of polycarboxylic acids, polyepoxides, polyoxazalines, polycarbodiimides, and polyisocyanates.